

CLAIM SET AS AMENDED

1. (Previously Presented) A method of discriminating a sample for a sensor system which quantitates a concentration of a target substance contained in the sample by measuring electric current, said method comprising the steps of:

using a ratio of a measured current value to a time differential value of the current value as a discriminating parameter;

defining a discrimination function for discriminating kinds of a plurality of samples, said discrimination function using said discriminating parameter as an independent variable;

using a numeric value obtained by substituting the value of said discriminating parameter into said discrimination function, as a discriminating index; and

discriminating the kind of any one of the plurality of samples based on said discriminating index,

wherein said discrimination function is defined by means of an expression of a high degree for said discriminating parameter.

2. (Original) The method according to claim 1, wherein said discrimination function is defined by means of an expression using a plurality of said discriminating parameters.

3-4 (Canceled)

5. (Original) The method according to claim 1, wherein the kinds of the samples to be discriminated are a body fluid and a control fluid.

6. (Previously Presented) The method according to claim 5, further comprising the steps of:

judging whether said sensor system is operating properly or not based on a quantitated value of the concentration of the target substance; and
indicating a result of the judging step.

7. (Previously Presented) The method according to claim 1, further comprising the step of:

indicating that the step of discriminating the kind of the sample has not been automatically performed when the discriminating index is within a predetermined range such that it is difficult to discriminate the kind of the sample.

8. (Previously Presented) The method according to claim 7, further comprising the step of:

designating that a manual operation is required when the discriminating index is within the predetermined range such that it is difficult to discriminate the kind of the sample.

9. (Canceled)